

**G-1 SEDIMENT TRAPS****PURPOSE & APPLICATIONS**

A sediment trap is a small, temporary ponding area to intercept sediment-laden runoff from small disturbed areas long enough to allow the coarser sediment particles to settle out. A sediment trap is usually installed in a drainageway, at a storm drain inlet or culvert inlet, or other points of discharge from a disturbed area.

**SPECIFICATIONS**

**Location:** Sediment traps shall be located so that they can be installed prior to disturbing the area they are to protect. Traps must not be located any closer than 20 feet from a proposed building foundation if the trap is to function during construction. Locate traps to obtain maximum storage benefit from the terrain, for ease of cleaning out and disposal of the accumulated sediment.

**Trap Clean out:** Sediment shall be removed and the trap restored to its original dimension when the sediments have accumulated to 1/2 of the trap's design depth. Sediment removed from the trap shall be deposited in a protected area and in such a manner that it will not erode.

**Excavation:** All excavation operations shall be carried out in such a manner that erosion and water pollution shall be minimal. Excavated sediment traps shall have 1:1 or flatter slopes.

**Outlet:** The outlet shall be designed, constructed and maintained in such a manner that sediment does not leave the trap and that erosion at or below the outlet does not occur. Sediment traps must outlet onto stabilized (preferably undisturbed) ground, into a watercourse, stabilized channel, or into a storm drain system.

**Pipe Outlet Sediment Trap**

See the detail drawings at the back of this section for the proper construction of a pipe outlet sediment trap. A pipe outlet sediment trap consists of a trap formed at the outlet of a detention pond used for water quantity control and the water shall be discharged to a well-vegetated receiving area to be filtered by natural or well-established vegetation.

**Construction Sequence:** The outlet trap is installed before the construction of the project begins and is to remain operational until the site is fully stabilized. Sediment traps with pipe outlet structures may be fitted with a temporary perforated riser, surrounded by a gravel cone.

**Riser:** The outlet for the trap is through a perforated riser pipe through the embankment. The outlet pipe and riser shall be made of corrugated metal and its top 2/3 must be perforated with (1) inch nominal diameter holes or slits spaced six (6) inches vertically and horizontally placed into the concave portion of the corrugated pipe. No holes or slits will be allowed within six (6) inches of the top of the horizontal barrel.

**Filter Fabric:** A geotextile filter shall be installed around the riser. The riser shall be wrapped with a geotextile or filter cloth (Mirafi 100 X, Poly Filter GB or a filter cloth with an equivalent sieve size between #40-80) and secured with strapping or connecting band at the top and bottom of the cloth. The cloth shall cover an area at least six (6) inches above the highest hole and six (6) inches below the lowest hole. The top of the riser pipe shall not be covered with filter cloth.

**Embankment:** The top of the embankment shall be at least 1 1/2 feet above the crest of the riser. The embankment shall be fully stabilized with either riprap or vegetation and mulch.

**Anchoring Weight:** The riser shall have a base with sufficient weight to prevent flotation of the riser. Two approved bases are: (1) A concrete base 12 inches thick with the riser embedded 9 inches into the concrete base, or (2) 1/4" minimum thickness steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2.5 feet of stone, gravel, or earth placed on it to prevent flotation. In either case, each side of the square base measurement shall be the riser diameter plus 24 inches.

**Riprap Outlet Sediment Trap and Energy Dissipator:** A Riprap Outlet Sediment Trap consisting of a trap formed by an excavation and embankment. The outlet for this trap shall be

through a partially excavated channel lined with riprap. This outlet channel shall discharge onto a stabilized area or to a watercourse. The riprap outlet sediment trap may be used for drainage areas of up to a maximum of 15 acres. Refer to PIPE OUTLET PROTECTION BMP.

